CVMD is a constant pressure regulator for refrigeration and freezing plant in applications such as:
• Hot gas defrosting (drain lines)
• Refrigerant pump bypass (to ensure min. flow in refrigerant pumps).

**Technical data**

- **Refrigerants**
  HCFC, HFC, R717 (Ammonia)
- **Range**
  0-7 Bar (0-102 psi)
- **Max. working pressure**
  PB = 28 bar (406 psi)
- **Temperature range**
  –50°C / +120°C (–58°F/248°F)

- **k, value**
  1.5
- **C, value**
  1.7
- **Classification:** DNV, CRN, BV, EAC etc.
  To get an updated list of certification on the products please contact your local Danfoss Sales Company.

**Ordering**

CVMD incl. 1/2 in. weld flange, code no. 027B1038.

**Materials**

- Gaskets are non asbestos
- Valve housing made of EN-GJS-400-18

**Construction**

1. Protection cap
2. O-ring
3. Spindle
4. Gasket
5. Cover
6. Spring
7. Screw
8. Diaphragm
9. Gasket
17. Flanges
**Dimensions and weight**

**CVMD**

- Weight: 2.7 kg

**Application**

**Example**

Hot gas defrosting of evaporator with pump circulation

The figure shows the low pressure side of an R 717 refrigeration plant with flooded evaporator with pump circulation.

In this application, the constant pressure valve, type CVMD, is mounted as a pressure regulator in the bypass line between evaporator and downstream wet suction line after the solenoid valve, type PMLX.

The CVMD can be used in this application for evaporators with capacities up to:

<table>
<thead>
<tr>
<th>R 717</th>
<th>Defrost temperature</th>
<th>+10°C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Drainline capacity kg/h)</td>
<td>(1666)</td>
</tr>
<tr>
<td></td>
<td>Max. Q&lt;sub&gt;Evaporator&lt;/sub&gt; (kW)</td>
<td>240</td>
</tr>
</tbody>
</table>

Based on:

\[
\Delta P_{\text{defrost}} = 1, \ k_v = 1.5 \text{ m}^3/\text{h}
\]

Defrost capacity (kW) = \(2.5 \times Q_{\text{Evaporator}}\)

Use PM + CVP (HP) valves for higher capacities.